ODP-8-2243

14 DEC 1978

MEMORANDUM FOR: Assistant for Information, DDA   STATINTL

FROM   : ████████████████
                   Deputy Director for Data Processing

SUBJECT   : Information Handling Study

REFERENCES   : a. Your memorandum of 28 November 1978,
                       same subject, (DDA 78-4384/1)
                   b. Multiple addressee memorandum from
                       James H. Taylor, dtd. 21 November 1978,
                       same subject, (DDA 78-4384)

1. In responding to your inquiry about the information
handling study we are, in a sense, receiving our own forward
pass, since we collaborated in the preparation of the inquiry.
In addition, the DDA response to the Taylor memorandum will
be part of the raw material to be used by ODP and the Office
of the Comptroller in the preparation of an Agency position
on this subject. However, in the interest of completeness
in the DDA response, the following input is offered.

2. Taylor's question 3.a. involves the definition of
information handling. Two definitions have been suggested
by ODP personnel. One of them, which appears in a draft OMB
Circular #A-71, is really a definition of information tech-
nology, but it is also potentially a definition of information
handling. The definition reads: "Information technology is
all computer and telecommunications hardware and associated
software which is used to store, disseminate, transmit, or
otherwise process information and which have a development
or acquisition cost in excess of $10,000. Information tech-
nology also includes all resources directly related to the
acquisition, development, operation, management or disposal
of that technology including but not limited to people,
facilities, and supplies." Another possible definition of
information handling, which may however prove too comprehensive
to be of practical utility, is as follows: "An information
handling system can be defined as the total collection of
people, procedures, and equipment designed, built, operated,
and maintained to record, process, store, communicate, retrieve,
and display data that provides people with information to
support their decisions and actions."

3. On Taylor's paragraph 3.b., having to do with major problems in handling information, the most serious problem identified by ODP has to do with the gradual and inexorable blurring of the distinctions which once separated ADP functions from communications functions and the further complications created for both of these major disciplines by the arrival on the scene of "smart" multiplexers and word processing technology. Indeed it was a realization of the gradual merger of these technologies which caused ODP and Office of Communications leaders to form a joint planning group and to collaborate with the then Assistant for Information to develop the proposal which in time led to the present request from the Comptroller.

4. At a second level of significance a number of information handling problems can be identified. These include the availability and the allocation of user terminals; the availability of an adequate communications network to support these terminals; the allocation of adequate physical

space to house ADP and Communications hardware; the use of Agency resources to develop and support community-wide ADP systems; the attraction and retention of qualified ADP professionals given the inducements present in today's marketplace; the need for a greater degree of standardization in the Agency's development of ADP software; and the need to achieve Agency standardization in dealing with a burgeoning hardware market which includes a profusion of minicomputers and microcomputers.

5. Regarding paragraph 3.c. in the Taylor memo, the answer to the question on Agency-wide management issues is foreshadowed in paragraph 3. above. Certainly the merger of technologies and the implications of that merger must be of concern to Agency managers. Related is the prospect of uncontrolled proliferation of various standalone devices loosely covered by the general rubric, "word processors." The proper organizational placement of control over word processing, the relationship of that control to organizational control over computerized printing, and the relationship of both of those functions to the traditional functions of communications and ADP, involve organization issues which must be dealt with at the Agency level.

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6. There is one other major issue which deserves attention although, regrettably, its resolution does not lie within the independent authority of the Director of Central Intelligence. Despite the increasing availability and utility of minicomputers as a viable alternative to large scale centralized computers, restrictive procurement directives and budgetary decisions have imposed limitations on ODP which cripple its efforts to manage the development of this alternative in a logical and systematic manner. Indeed, this question of restrictive procurement directives goes beyond the matter of minicomputers into a whole realm of ADP procurement and could inhibit any Agency program to manage, in a thoroughly systematic way, the complex of activities which can be called information handling. At some point the limitations imposed on this and other agencies by these restrictions and the cost to the U.S. taxpayer of these restrictions should be addressed and brought to the attention of senior policymakers in the government.

7. Paragraph 3.d. in the Taylor memorandum asked what programs underway have a bearing on these issues. Clearly from the ODP point of view the system most likely to bear upon the development of information handling in CIA is the SAFE system. Any external study of our attempts to develop more effective information handling practices would be incomplete if it did not evaluate SAFE and its long range implications. Another program which deserves attention is the ODP effort to standardize on a general purpose, versatile soft copy terminal complete with options which would turn the terminal into a very powerful microcomputer and word processor interconnected with other terminals, with the mainframe computers and, in theory at least, also connected to other locally positioned minicomputers. Finally, we now have the capability to generate cables in electronic form, ready for transmission once released, and we are developing the ability to create the input to the Office of Logistics ETECS system. Such information handling capabilities have large implications for the ways in which we will communicate, manipulate and publish intelligence information in the future.

8. As the answers to these questions were being collected in ODP there was frequent reference to the size of the problem under discussion and one knowledgeable group used the phrase "formidable undertaking" to describe the nature of this task. Regardless of how formidable it may be, it seems to us imperative that some systematic way be found to address these problems. The prospect is clear; they can be addressed now while they are still relatively

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small or they can be addressed later after they have created
untold mischief and uncounted headaches for Agency managers.
In the words of the television advertisement, "You can pay
me now or you can pay me later." The price we pay now,
however large, will assuredly be smaller than the price
we pay later.

STATINTL

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DDA 78-4384/1

28 November 1978

MEMORANDUM FOR: Director of Communications
                      Director of Data Processing
                      Director of Finance
                      Director of Logistics
                      Director of Medical Services
                      Director of Personnel
                      Director of Security
                      Director of Training
                      Chief, Information and Privacy Staff
                      Chief, Information Systems Analysis Staff

FROM: ████████████████████   **STATINTL**
                  Assistant for Information, DDA

SUBJECT: Information Handling Study

REFERENCE: Multiple addressee memorandum from James H.
                  Taylor dtd 21 November 1978, same subject

     I have been asked to pull together the DDA response to
the attached memorandum from James Taylor, Comptroller, re-
garding the Agency goal concerned with information handling.
Attached is the memorandum from Mr. Taylor as well as two
papers on information handling pulled together for the dis-
cussions held in June and September on Agency goals. The
Taylor memorandum is self-explanatory and requests the
perspectives of all components on the information handling
problem and related management issues. Since we must have
the DDA response to Jim Taylor by 15 December, I would appre-
ciate it if you could have your response to me by COB on
13 December.

                                  ████████████   **STATINTL**

Attachments: a/s

DP/A Registry
78-4384

21 NOV 1978

MEMORANDUM FOR: Deputy Director for Administration
                 Deputy Director, National Foreign Assessment Center
                 Deputy Director for Operations
                 Deputy Director for Science & Technology
                 Administrative Officer, DCI Area

FROM   : James H. Taylor
                 Comptroller

SUBJECT   : Information Handling Study

1. (A/IUO) At the Director's June conference on goals the DDA sub-
mitted a proposal for developing a better structure for coordinating and
carrying out the Agency's information handling activities. At the
Director's September conference the goal was resubmitted jointly by the
DDA and the Comptroller, revised as follows:

> Goal 1: Develop a comprehensive information handling
> strategy for the Agency and a structure for more formal,
> continuing coordination of the Agency's ADP, communica-
> tions, records management, and word processing activities.

The reasons for developing a "comprehensive information handling strategy"
are numerous. The attached paper entitled Information Management in CIA
was an integral part of the goal package discussed in September and addresses
some of them. In addition, we believe that some components are having
difficulties trying to plan future information handling programs in the
absence of a cohesive, Agencywide plan. For all of these reasons, senior
managers have agreed on the need for a comprehensive review of Agency
information handling activities.

2. (A/IUO) The approach recommended in September was to hire "the
best possible outside management or consulting firm" to formulate recom-
mendations for Agency consideration. Further discussion of this goal
since September has led to the conclusion that as a first step, a compre-
hensive, if generalized, statement of the task should be developed and
submitted to the EAG for discussion and restatement as necessary. Once
we have agreement on the task, we can select a senior officer to direct
the project, prepare a formal statement of work, select a suitable
contractor, and initiate the study.

3. (A/IUO) To ensure that the tasking statement which goes to the
EAG is as comprehensive and thoughtful as possible, we are soliciting

input from all Agency components. What information handling and management issues would you expect to be included in a statement presented to senior Agency management? We would like your responses to address at least the following:

(a) How, for management purposes, should we define information handling? So many define it so differently that we need to develop a composite definition.

(b) What are your major problems in handling information that presently affect or will in the future affect the performance of your component and/or other Agency components?

(c) What are the Agencywide management issues in information handling that you believe need attention in this study (e.g., planning, utilization of technology, internal organizational relationships, others)?

(d) What programs, now underway or being planned, do you think have a bearing on these issues and therefore need to be addressed in this study?

4. (A/IUO) I would like to have your responses to this request by 15 December. While I leave to your discretion the structure of your response, I believe it would be helpful if the comments of your individual components could be made available to us. We need as broad a response to this issue as possible if we are to develop a meaningful and complete tasking statement. Presentation to the EAG will be scheduled for early 1979.

STATINTL

James H. Taylor

Attachment: As Stated

Information Management in CIA

The Executive Advisory Group has given considerable attention to the problem of managing the automatic data processing activities of CIA, recognizing the need for careful control over the growth of this expensive resource. It is becoming increasingly apparent, however, that to control ADP is to control only one element in a family of activities, all of which involve the handling of information.

CIA collects, transmits, stores, retrieves, shares, collates, transforms, produces and publishes information in bewildering profusion. To facilitate these multiple processes we have developed highly sophisticated and costly communications and ADP systems, related in various ways to our printing and publication facilities and to the pervasive records management processes through which we identify and safeguard the information we need to accomplish our intelligence tasks.

These various information handling tools are highly interdependent. Computer data flows on communications lines; communicated messages come to rest in computer data banks; computerized records are converted to microfilm and microfiche; filmed and paper records are scanned electronically for communication to remote display terminals; word-processing techniques expand the computer data base or feed computerized text-editing and printing processes, etc., etc. A management program to control a single element in this family of activities will be frustrated by the ways in which decisions made in another area can generate new, unprogrammed increases in workload. An awareness by the managers of the larger information service components of the need for coordination has protected us from major problems to date, but a new element is entering the picture, threatening organizational loss of control.

The emerging, as yet ill-defined techniques of "word processing," are beginning to place in the hands of individual officers or units the capacity to handle their information far more effectively and efficiently. This new localized word processing power is accompanied, however, by the ability to generate new and unanticipated demands on the central ADP and communication systems, and it threatens to have dramatic impact on our records management programs. The Information Systems Analysis Staff in the O/DDA is attempting to measure the costs and benefits of these new techniques, but is finding that without the ADP and communication factors, the analysis of word processing lacks significance. There are, to be sure, "stand-alone" word processors, but the advantages of interconnection are enticing and easily obtained in today's market, and the use of computer terminals as word processors (using software packages like SCRIPT) has the potential for uncontrolled growth.

The new Office of Community Information Systems (OCIS) will apparently be looking at some of these problems as they relate to the Intelligence Community. CIA has no counterpart to OCIS, no single voice speaking knowledgeably about the way information is or should be managed in the Agency. Indeed, as is noted at budget defense time every year, CIA does not even have one focal point for all its ADP effort. The Director of Data Processing manages and can speak for only about half of the Agency's ADP resources.

One of the three DDA management goals for 1978, along with the search for greater effectiveness and proficiency, was the enhancement of information management. As we attempt to achieve this goal, we are continually reminded of the fact that in CIA the sharing of information and information-handling facilities makes a one-directorate approach to this problem ineffective. We need a mechanism to plan and coordinate our information-handling activities on an Agency-wide basis.

1.   This recommended approach is submitted in concert with the Comptroller.

2.   Additional thought and discussion has been given this matter since the goal was first submitted for consideration in June.   That consideration has led to a series of both negative and positive conclusions.   The negative conclusions are:

    a.   The somewhat traditional and conventional Agency approach of appointing an inter-directorate staff study group reporting to EAG is insufficient for the cause.

    b.   The magnitude of the problem, availability of qualified Agency personnel to study it full-time, and the need to capitalize on the best experience and technology available preclude an exclusive in-house attach.

    c.   The presence of biases, subconscious or otherwise, amongst Agency personnel would inhibit the development of the most objective considerations to meet the problem.

The positive conclusions arrived at are:

    a.   The problem is real, is here, and a failure to study and attack it now will only exacerbate a solution at a later date.

    b.   The attack on the problem should not be undertaken unless we are absolutely committed to solve it.

    c.   The implementation to the solution to the problem may well involve a major, if not drastic, realignment of operating components in this Agency, with the most dramatic possibility being the creation of a new directorate.   If we are not prepared to accept and seriously discuss drastic remedies, we should not undertake the exercise.

    d.   A project director from the Agency, backed up by an Agency steering committee, should be appointed.   The major study and formulation of recommendations, however, should be done by the best possible outside management or consulting firm that we can select.   This firm should have a demonstrated record in attacking and successfully recommending solutions to some counterpart problems.

     e. The study will not be inexpensive and should not be forced to meet an unreasonable time frame.

    3. If all of the above stipulations are accepted, an initial implementing step, working within the constraints established above, would be to appoint the project manager and steering group to develop and operating plan of attack, to include a statement of the problem.